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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,205	03/17/2004	Laurent Daynes	SUNMP337B	5844
32291 7590 10/31/2007 MARTINE PENILLA & GENCARELLA, LLP 710 LAKEWAY DRIVE SUITE 200 SUNNYVALE, CA 94085			EXAMINER KHATRI, ANIL	
			ART UNIT 2191	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/803,205	Applicant(s) DAYNES ET AL.	
	Examiner Anil Khatri	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6-11, 13, 14, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 3-5, 12, 15, 16 and 19-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/26/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: Cross Reference to Related Application information/ number is required. See page 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-21 are rejected under 35 USC 101 because they disclose a claimed invention that is an abstract idea as defined in the case *In re Warmerdam*, 33, F 3d 1354, 31 USPQ 2d 1754 (Fed. Cir. 1994).

Analysis: Claims 1-16 disclosed by the applicant as being a “computer implemented process for making byte code of a method...”. Since the claims are each a series of steps to be performed on a computer the processes must be analyzed to determine whether they are statutory under 35 USC 101.

Examiner interprets that the claims 1-16 are non-statutory because claim is a computer program for processing set of instructions which capable of being executed by a computer implemented method, the computer program itself is not a process and without the computer-readable storage medium so its functionality can be realized. Applicant submit no substance that

Art Unit: 2191

how this will be processed without incorporating a processor, memory and medium. Therefore, claims 1-16 are merely a dividing a run time representation, determining and generating a loader and invoking a method which is not able to produce a useful results and practical application.

Thus, claims 1-16 are non-statutory and rejected under 35 USC 101.

Examiner interprets that claims 17-21 are not limited to tangible embodiments in view of applicant's disclosure, specification pages 57-58 the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., [computer readable medium]) and intangible embodiments (e.g., [transmission media, radio frequency (RF), infrared (IR), a carrier wave, telephone line, a signal, etc.]). As such, the claim is not limited to statutory subject matter and is therefore non-statutory. To overcome this type of 101 rejection the claims need to be amended to include only the physical computer media, computer readable storage medium and not a transmission media.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6-11, 13-14 and 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by *Bracha et al* USPN 6,430,569.

Regarding claims 1 and 17

Bracha et al teaches,

Art Unit: 2191

dividing a runtime representation of the first class type into a first loader independent part and a first loader dependent part (column 3, lines 47-52, Methods and apparatus consistent with the invention ensure type safe linkage of classes in an environment that employs multiple runtime name spaces, user-defined class loaders, and lazy loading of classes. This is accomplished by creating and maintaining a set of loader constraints that are dynamically updated as class loading takes place);

determining whether a runtime representation of the second class type can use the first loader independent part of the runtime representation of the first class type (column 7, lines 36-44, identifying a first class that references an attribute that (i) is contained in a second class and (ii) is of a specified type; imposing a constraint on program instructions that the specified type when loaded by a loader that defines the first class is the same as the specified type when loaded by a loader that defines the second class; and verifying compliance with the constraint);and

if the first loader independent part of the runtime representation of the first class type can be used by the runtime representation of the second class type, generating a second loader dependent part of the runtime representation of the second class type using the first loader independent part of the runtime representation of the first class type (column 8, lines 15-25, method for ensuring class type safe linkage in a runtime environment having a first class that is defined by a first loader, a second class that is defined by a second loader that may be different from the

Art Unit: 2191

first loader, the first class referencing an attribute that is contained in the second class and that has a type defined by a third class, comprising: imposing a constraint on program instructions that the third class as loaded by the first loader is the same as the third class as loaded by the second loader; and verifying compliance with the constraint when the third class has been loaded by at least one of the first loader and the second loader) ; and

performing a loader re-entrant interpretation of a byte-code of the method if the method is invoked (column 5, lines 8-18, A loaded class cache (LCC) maps a class name (e.g., E) and an initiating class loader (e.g., L1) to the runtime representation of a class type (e.g., C.sub.L1).

The combination of the class name and the initiating class loader constitute a "key" that yields a "return" class type. This may be represented as $LCC(E,L1)=C.sub.L1$. When E is referenced, the JVM checks the LCC to determine whether E has previously been loaded by L1 (which is the defining loader of the referencing class). If so, the reference is resolved to the class type stored at the LCC entry for (E,L1). If not, the JVM loads the referenced class by using the initiating loader and enters the class into the LCC).

Regarding claim 2

Bracha et al teaches,

generating from the second class file a second loader dependent part of the runtime representation of the second class type and a second loader independent part of the runtime representation of the second class type (column 8, lines 15-25, method for ensuring class type safe linkage in a runtime environment having a first class that is defined by a first loader, a

Art Unit: 2191

second class that is defined by a second loader that may be different from the first loader, the first class referencing an attribute that is contained in the second class and that has a type defined by a third class, comprising: imposing a constraint on program instructions that the third class as loaded by the first loader is the same as the third class as loaded by the second loader; and verifying compliance with the constraint when the third class has been loaded by at least one of the first loader and the second loader).

Regarding claims 6-11 and 13-14

Bracha et al teaches,

distinguishable marker used for the byte code manipulating a static variable is a null pointer (column 5, lines 28-45, To create an entry $LCC(E, L1) = T.sub.L1$, the JVM creates an LCC entry indexed by the key $(E, L1)$ with a null class type. If no entry $CT(E)$ exists, the JVM creates a CT entry indexed by E, and initializes it to an empty set. The JVM also checks each pair $P.sub.i$ from $CT(E)$ to see if $L1$ is in $S.sub.i$. If there does not exist such a pair $P.sub.i$ (i.e., there exists no constraint on $E.sup.L1$), the JVM sets $LCC(E, L1) = TL1$. If there exists such a pair $P.sub.i$ (i.e., there exists a constraint on $E.sup.L1$), the JVM checks to see if the two class types, $T.sub.L1$ and T_i , are compatible. Two class types are compatible if they are the same or if one is a null type. In other words, $compatible(T.sub.L1, T.sub.i) = (T.sub.L1 = T.sub.i) \text{ or } (T.sub.L1 = null) \text{ or } (T.sub.i = null)$. If the two class types $T.sub.L1$ and $T.sub.i$ are not compatible, an error is indicated. If the two types are compatible, the pair $P.sub.i$ is set to $(S.sub.i, join(T.sub.i, T.sub.L1))$ and $LCC(E, L1) = T.sub.L1$. $Join(T.sub.i, T.sub.L1) = T.sub.L1$ if $T.sub.i$ is null,

Art Unit: 2191

otherwise the result is T.sub.i (assuming T.sub.i and T.sub.L1 are compatible as defined above).

The JVM also checks to ensure that the class type actually loaded has the same name as the referenced class. If it does not, an error is indicated).

Regarding claim 18

Bracha et al teaches,

program instructions for generating a second loader dependent part of the runtime representation of the second class type and a second loader independent part of the runtime representation of the second class type (column 7, lines 36-44, identifying a first class that references an attribute that (i) is contained in a second class and (ii) is of a specified type; imposing a constraint on program instructions that the specified type when loaded by a loader that defines the first class is the same as the specified type when loaded by a loader that defines the second class; and verifying compliance with the constraint).

Allowable Subject Matter

Claims 3-5, 12, 15-16 and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Art Unit: 2191

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anil Khatri whose telephone number is 571-272-3725. The examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


ANIL KHATRI
PRIMARY EXAMINER